UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

7590

05/05/2004

STEVENS, DAVIS, MILLER & MOSHER, LLP Suite 850 1615 L Street, N.W. Washington, DC 20036

EXAMINER LIN, ING HOUR

ART UNIT

PAPER NUMBER

1725

DATE MAILED: 05/05/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,435	10/01/2003	Ranjan Ray	APV31204CIPA	5664

TITLE OF INVENTION: CENTRIFUGAL CASTING OF TITANIUM ALLOYS WITH IMPROVED SURFACE QUALITY, STRUCTURAL INTEGRITY AND MECHANICAL PROPERTIES IN ISOTROPIC GRAPHITE MOLDS UNDER VACUUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665	\$300	\$965	08/05/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown
- B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check the box below and enclose the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
- Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or Fax

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for

maintenance fee notifications. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) 7590 05/05/2004

STEVENS, DAVIS, MILLER & MOSHER, LLP Suite 850 1615 L Street, N.W. Washington, DC 20036

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO and the date indicated below.

mitted to the USPTO, on the date indicated below.	
	(Depositor's name)
	(Signature)
	(Date)

		· · · · · · · · · · · · · · · · · · ·		
APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,435	10/01/2003	Ranjan Ray	APV31204CIPA	5664

TITLE OF INVENTION: CENTRIFUGAL CASTING OF TITANIUM ALLOYS WITH IMPROVED SURFACE QUALITY, STRUCTURAL INTEGRITY AND MECHANICAL PROPERTIES IN ISOTROPIC GRAPHITE MOLDS UNDER VACUUM

APPLN. TYPE	SMALL ENTITY	ISSUE FEE		PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$665		\$300	\$965	08/05/2004
EXAMINER		ART UNIT		CLASS-SUBCLASS		
LIN, ING HOUR 1		1725		164-529000	_	
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			names of agents Of firm (hav agent) an	inting on the patent front page, f up to 3 registered patent a R, alternatively, (2) the name ring as a member a registered d the names of up to 2 registor agents. If no name is listerinted.	attorneys or 1 of a single attorney or 2 tered patent	

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

			• .	•**
Please check the appropriate assignee category or categories (v	will not be printed on the patent);	☐ individual	☐ corporation or other private group entity	government
4a. The following fee(s) are enclosed:	4b. Payment of Fee(s):			
☐ Issue Fee	A check in the amo	unt of the fee(s) i	s enclosed.	
☐ Publication Fee	Payment by credit of	ard. Form PTO-2	2038 is attached.	
☐ Advance Order - # of Copies			by charge the required fee(s), or credit any (enclose an extra copy of this	
Director for Patents is requested to apply the Issue Fee and Pul	blication Fee (if any) or to re-apply	any previously p	aid issue fee to the application identified abo	ve.
(Authorized Signature)	(Date)			
NOTE; The Issue Fee and Publication Fee (if required) w other than the applicant; a registered attorney or agent; o interest as shown by the records of the United States Patent a	r the assignee or other party in			
This collection of information is required by 37 CFR 1.311 obtain or retain a benefit by the public which is to file (an application. Confidentiality is governed by 35 U.S.C. 122 an estimated to take 12 minutes to complete, including gatherin completed application form to the USPTO. Time will vary case. Any comments on the amount of time you require suggestions for reducing this burden, should be sent to the Patent and Trademark Office, U.S. Department of C 22313-1450. DO NOT SEND FEES OR COMPLETED SEND TO: Commissioner for Patents, Alexandria, Virginia 2	ng, preparing, and submitting the y depending upon the individual e to complete this form and/or Chief Information Officer, U.S. ommerce, Alexandria, Virginia FORMS TO THIS ADDRESS.			
Under the Paperwork Reduction Act of 1995, no person collection of information unless it displays a valid OMB control	is are required to respond to a trol number.			



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/674,435	10/01/2003	Ranjan Ray	APV31204CIPA	5664	
75	590 05/05/2004		EXAM	INER	
	IS, MILLER & MOS	SHER, LLP	LIN, ING HOUR		
Suite 850 1615 L Street, N.W	<i>.</i>		ART UNIT	PAPER NUMBER	
Washington, DC 20			1725		
			DATE MAILED: 05/05/200	4	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.